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09/595,498	06/16/2000	Jadie Soo Sun	Sony- 50P3801	9931

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EXAMINER

NOBAHAR, ABDULHAKIM

ART UNIT	PAPER NUMBER
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2132

DATE MAILED: 12/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/595,498

Applicant(s)

SUN, JADIE SOO

Examiner

Abdulhakim Nobahar

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. This communication is in response to applicant's response received on July 12, 2004.
2. Amendments to claims 9 and 13 without introducing any new matter are acknowledged.
3. Applicant's arguments have been fully considered but they are not persuasive.
4. Regarding applicant's argument with respect to claim 1 on page 8 of the remarks that "the OSI standard has not been cited in the record", examiner respectfully draw applicant's attention to the teaching of Ottesen et al on column 18, lines 1-18. Ottesen et al teaches that the communication between each set-top unit and the providing server conforms to the seven layers of OSI model. According to the OSI model the data link layer, which receives the bit stream from the physical layer, performs framing, packaging, synchronization, sequencing and appending (corresponds to the data packets modification and arrangement) and delivers them to the network layer. The network, transport and the application layers based on the OSI model process the data packets. Please see the descriptions of the data link and network layers provided in the "The Authoritative Dictionary of IEEE Standards Terms", seventh edition published December 2000 and "Microsoft Computer Dictionary", fifth edition published 2002. Also

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please see second edition of the "Local Area Networks" by James Martin, pages 72, 96, 319-323 and 377; US patent No. 6,076,114 to Wesley, column 2, lines 43-67; US patent No. 6,747,979 to Banks et al, column 1, line 50-column 2, line 45, column 10, lines 35-60, column 11, lines 10-20 and column 12, lines 9-23; US patent No. 6,094,435 to Hoffman et al, column 2, lines 5-45, column 4, lines 14-35, column 10, lines 40-48 and column 14, lines 10-20; US patent application publication No. 2002/0003795 A1 to Oskouy et al, [0004], [0010], [0017], [0021], [0081] and [0111]. Based on these sources the data link layer of the OSI model is a communication layer that also reassembles the fragmented data packets for sending to the network layer, which is a processing layer of data packets.

5. With respect to claim 8 on page 9 of the remarks applicant argues that "determining whether a subscriber is authorized to access the material does not teach the claimed limitations regarding said second device's compliance with a copy protection scheme".

Ottesen teaches that "after proper account verification is confirmed, the subscriber customer is granted authorization rights to receive multimedia programming from the multimedia server", column 13, lines 16-18. It is readily apparent to those skilled in the art that the process of an account verification belonging to a subscriber who attempts to access multimedia programming such as copy-protected material requires some secret information that must be provided by the subscriber customer through a sink device such as a set-top box or a personal computer. Additionally,

applicant himself testifies that this process is a known and a commonplace procedure by stating that "One conventional way to authenticate a device is for the source device to determine whether the sink device is compliant with a copy-protection protocol" on page 2, lines 5-6 of the application specification.

6. Regarding applicant arguments with respect to the currently amended claims 9 and 13, see the following rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 and are rejected under 35 U.S.C. 102(e) as being anticipated by Ottesen et al. (6,208,804 b1; hereinafter Ottesen).

Ottesen discloses a method for transferring source program signals representative of a multimedia program to and from a multimedia direct access storage device (col. 3, lines 25-52). The multimedia direct access storage device is preferably a

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component of a local set-top control unit that buffers some of the compressed program segments received from a multimedia server.

Claim 1

a) Establishing a connection between said first device and said second device.

See, for example, col. 7, lines 11-30, where the se-top control unit is corresponding to the recited first device and the server corresponds to the recited second device.

b) A communication layer of code coupled to said first device receiving at least one packet from said second device. See, for example, col. 9, lines 26-31 and col. 18, lines 1-18, where the data-link layer corresponds to the recited communication layer of code.

c) Said communication layer of code sending a response to said second device for each of said packets received in step b). Ottesen discloses that the se-top controller system conforms to the Open System International (col. 18, lines 1-18) (i.e., the set-top unit communicates back and forth with the multimedia server during a communication session) and cooperates with the multimedia server in transmission of packets (col. 16, lines 55-62 and col. 21, lines 33-55). Additionally, Ottesen discloses that the packet transmission to the set-top unit uses header error check (col. 17, lines 55-67) and the set-top unit performs packet synchronization (col. 22, lines 37-48 and col. 43, lines 34-41). These require the set-top unit to transmit a response (i.e., an acknowledgment signal) to the multimedia server upon receiving each packet.

d) Said communication layer transferring all of said packets as a single group to a processing, layer of code coupled to said first device, wherein said processing code and said communication code are independent from each other. As stated above, the set-top unit conforms with the OSI model (See, for example, col. 18, lines 1-18), where the presentation and application layers correspond to the recited processing layer. According to the OSI model the packets are received individually in the data-link layer and then after some modification and arrangement (i.e., re-assembling the packets), they are sent to the application layer for a process.

Claim 2

b1) Receiving a packet. See for example, col. 21, lines 42-55

b2) Determining whether said packet is a fragmented packet and b3) if said packet is a fragmented packet, said communication layer of code storing said fragmented packet in a temporary buffer coupled to said first device. See for example, col. 22, lines 6-15.

b4) If said received packet was not the last packet to be received from said second device, repeating steps b1) - b3). See for example, col. 22, lines 27-47.

Claim 3

The method of Claim 1, wherein step b) comprises the step of: b1) receiving an un-fragmented packet of data. See for example, col. 22, lines 37-48.

Claim 4

The method of Claim 1 further comprising the step of:

e) Negotiating the maximum size of said packets transferred between said first device and said second device. See for example, col. 15, lines 10-37.

Claim 5

The method of Claim 1 wherein said packet in step b) comprises an audio/video control (AV/C) command. See for example, col. 21, lines 55-65.

Claim 6

The method of Claim 1 wherein step c) comprising the step of: c1) said communication layer of code sending an audio/video control (AV/C) response to said second device for, each of said packets received in step b). See for example, col. 21, line 65-col. 22, line10.

Claim 7

The method of Claim 1 wherein said connection in step a) is made via an IEEE 1394 serial cable. See for example, col. 7, lines 12-30.

Claim 8

The method of Claim 1 wherein said packet comprises information regarding said second device's compliance with a copy protection scheme. See for example, col. 13,

lines 15-18, where verification of a subscriber to access multimedia program according to authorization rights corresponds to the recited a copy protection scheme.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ottesen et al. (6,208,804 b1; hereinafter Ottesen) in view of Fawcett et al (5,678,002; hereinafter Fawcett).

Claim 9

In a first device for transferring a digital signal, a method of exchanging data between the first device and a second device comprising the steps of:

a) Establishing a connection between said first device and said second device. See, for example, col. 7, lines 11-30, where the se-top control unit is corresponding to the recited first device and the server corresponds to the recited second device.

b) A communication layer of code coupled to said first device sending at least one packet to said second device. See, for example, col. 18, lines 1-18, where the data-link layer corresponds to the recited communication layer of code and col. 21, line 65-col. 22, line10.

c) Said communication layer of code receiving a response from said second device for each of said packets sent in step b). Ottesen discloses that the communication between the set-top unit and the multimedia server conforms to the Open System International (col. 18, lines 1-18 and Fig. 3) (i.e., the set-top unit communicates back and forth with the multimedia server during a communication session) and cooperates with the multimedia server in transmission of packets (col. 16, lines 55-62 and col. 21, lines 33-55). Additionally, Ottesen discloses the use of header error check (HEC) for the packet transmission between the multimedia server and the set-top unit (col. 17, lines 55-67). Thus, the server sends responses for the packets that receive from the set-top unit.

d) Repeating steps b) and c) until all packets are sent. Ottesen discloses that prior to transmission of data packet to the customers a process of verification and authorization (i.e., authentication) of the subscriber is performed (See for example, col. 13, lines 10-20). This means that data packet containing subscriber's information is transmitted from the set-top unit to the multimedia server and would continue until all the required information reaches the server.

e) Said communication layer transferring a response to a processing layer of code coupled to said first device, wherein said communication layer of code and said processing layer of code are independent from each other, wherein fragmentation of said packets is transparent to said processing layer. As stated above, the set-top unit conforms with the OSI model (See, for example, col. 18, lines 1-18), where the network, presentation and application layers correspond to the recited processing layer.

According to the OSI model the packets are received individually in the data-link layer and then after some modification and arrangement (i.e., reassembling the packets), they are sent to the higher layers for processing. The packet fragmentation and re-assembly, which happens at the data-link layer is separate and independent from the packet processing performed at the higher layers.

Ottesen, however, does not expressly disclose that at least one packet of authentication information is transmitted from the user device (i.e., the sink device) to the server (i.e., the source device).

Fawcett teaches an automated system and a method for resolving computer-related troubles by providing supports to clients from a central server (see, for example, abstract and Figs. 2-4). Fawcett teaches a communication layer in both client and server devices for receiving and transmitting packet of information (see, for example, col. 3, line 60-col. 4, line 11; col. 4, lines 52-63; Figs. 2-4). Fawcett further teaches that the packet fragmentation and reassembly is performed at the communication layer independent from the application layer (see, for example, col. 5, lines 36-41). Fawcett also teaches a security mechanism that authenticates the clients (see, for example, col. 5, lines 22-35). Client provides authentication information that is transmitted to the server in the form of packets at the communication layer and the application layer performs the authentication process (see, for example, col. 5, line 36-col. 6, line 3).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to utilize an authentication mechanism as taught in Fawcett in the system of Ottesen to send authentication information from client to the server because it

would prevent unauthorized access to the protected material (Fawcett, col. 5, line s 52-58).

Claim 10

The method of Claim 9 wherein said first device is a sink device and said second device is a source device. See for example, col. 6, lines 18-34, where the multimedia server corresponds to the recited a source device.

Claim 11

The method of Claim 9 wherein said packet in step b) comprises an audio/video control (AV/C) command. See for example, col. 21, line 65-col. 22, line10.

Claim 12

The method of Claim 9 wherein said response in step c) comprises a response to an audio/video control (AV/C) command. See for example, col. 21, lines 55-65.

Claim 13

A host device for processing digital audio/video signals comprising:

- a) A processor coupled to a bus. See for example, col. 12, lines 33-41 and col. 42, lines 52-60, where the set-top unit is the host device.
- b) A memory coupled to said bus. See for example, col. 20, lines 2-12.

c) A communication layer of code stored in said memory and, when run in said processor, operable to receive packets from a peripheral device connected to said bus via a communication link. See for example, col. 20, lines 2-37.

Said communication layer of code further operable to send a response to said peripheral device for each packet received from said peripheral device. See for example, col. 21, lines 55-65.

Said communication layer of code further operable to send all received packets as a single group to a processing layer of code stored in said memory. See for example, col. 21, lines 33-55.

Ottesen, however, does not expressly disclose that at least one packet of authentication information is transmitted from the user device (i.e., the sink device) to the server (i.e., the source device) for authentication of the client by the processing layer.

Fawcett teaches an automated system and a method for resolving computer-related troubles by providing supports to clients from a central server (see, for example, abstract and Figs. 2-4). Fawcett teaches a communication layer in both client and server devices for receiving and transmitting packet of information (see, for example, col. 3, line 60-col. 4, line 11; col. 4, lines 52-63; Figs. 2-4). Fawcett also teaches that the packet fragmentation and reassembly is performed at the communication layer independent from the application layer (corresponding to the recited a processing layer) (see, for example, col. 5, lines 36-41). Fawcett further teaches a security mechanism that authenticates the clients (see, for example, col. 5, lines 22-35). Clients provide

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authentication information that is transmitted to the server in the form of packets at the communication layer and the application layer performs the authentication process (see, for example, col. 5, line 36-col. 6, line 3).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to utilize an authentication mechanism as taught in Fawcett in the system of Ottesen to send authentication information from client to the server because it would prevent unauthorized access to the protected material (Fawcett, col. 5, line s 52-58).

Claim 14

The device for processing digital audio/video signals of Claim 13 wherein: said host device further comprises a temporary buffer stored in said memory. See for example, col. 20, lines 12-22.

Wherein said communication layer of code is further operable to determine whether said packets received in step c) are fragmented packets; and wherein said communication layer of code is further operable to store said fragmented packets in, said temporary buffer. See for example, col. 20, lines 23-37 and col. 22, lines 6-15.

Claim 15

The device for processing digital audio/video signals of Claim 13 wherein one of said packet in c) comprises an audio/video control (AV/C) command. See for example, col. 21, lines 55-65.

Claim 16

The device for processing digital audio/video signals of Claim 13 wherein said response in d) comprises a response to an audio/video control AV/C command. See for example, col. 21, line 65-col. 22, line10.

Claim 17

The device for processing digital audio/video signals of Claim 13 wherein said host device is a sink device. See for example, col. 20, lines 2-12, where the set-top unit corresponds to the recited a sink device.

Claim 18

The device for processing digital audio/video signals of Claim 13 wherein said host device is a source device. See for example, col. 8, lines 24-50, where the server corresponds to the recited a source device and functions as embodied in claim 13 particularly when receiving packets from the sink device to authorize the subscriber (col. 13, lines 10-20).

Claim 19

The device for processing digital audio/video signals of Claim 13 wherein said host device seeks full authentication. See for example, col. 13, lines10-20.

Claim 20

The device for processing digital audio/video signals of Claim 13 wherein said host device seeks restricted authentication. See for example, col. 13, lines 10-20, where the authorization rights correspond to the recited restricted authentication.

Claim 21

The device for processing digital audio/video signals of Claim 13 wherein said packets comprise information, which defines that the peripheral device sending the packet is compliant with a copy protection scheme. See for example, col. 13, lines 10-20, where verification of a subscriber to access multimedia program according to authorization rights corresponds to the recited a copy protection scheme.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent No. 6,747,979 B1 to Banks et al.

US Patent No. 6,076,114 to Wesley.

US Patent No. 6,094,435 to Hoffman et al.

US Patent No. 6,701,375 B1 to Walker et al.

US Patent No. 6,747,979 B1 to Banks et al.

US Pub. No. 2002/0003795 A1 to Oskouy et al.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abdulhakim Nobahar whose telephone number is 561-272-3808. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Abdulkhkim Nobahar
Examiner
Art Unit 2132



AN

November 30, 2004



THOMAS R. PEESO
PRIMARY EXAMINER